



# ACTIVE AIR

Dynamic Alternating Air Mattresses for Pressure Care

Aspire for... Prevention & Therapy of Pressure Injuries



# aspire ACTIVE AIR® Mattress Range

Pressure Injury prevention and management play a significant part in the overall care of residents and patients in aged and acute care settings. The Active Air range of alternating mattresses and overlays has been designed with international guidelines<sup>1</sup> around pressure care. These guidelines clarify the key risk factors in Pressure Injury development. The Active Air range is a suitable solution for “At Risk” to “High Risk” users in all clinical environments.

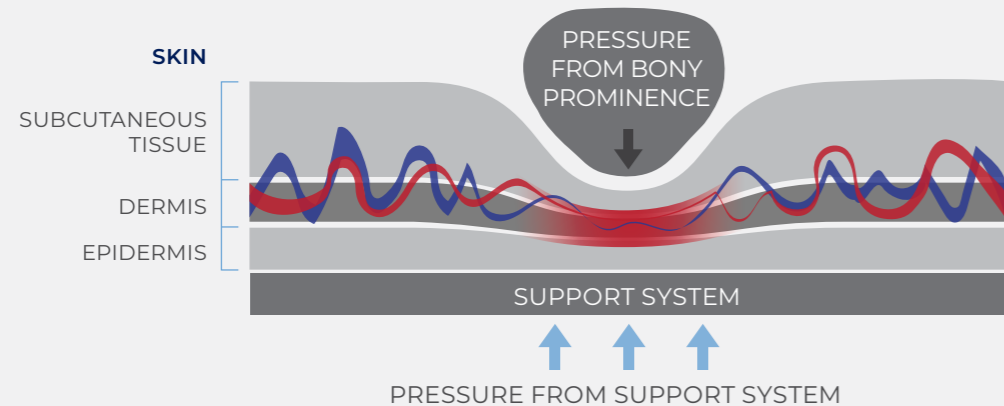
## Key Risk Factors Addressed

Key risk factors identified as significant contributors to Pressure Injury development are embedded in the design of the Active Air range, resulting in features and functions to successfully combat each risk factor and more.

### Pressure

When a person has limited movement, pressure builds up at bony prominences and weight bearing body parts. The pressure leads to the occlusion of small blood vessels, which restricts blood flow and oxygen delivery to the tissue. This causes cell and tissue death, which results in Pressure Injury.

To combat this, the Active Air range alternates in a 1-in-2 pattern. 50% of body weight is in contact with the surface at all times on an inflated cell, while 50% of body weight is relieved of pressure. This ‘pressure on / pressure off’ cycle encourages blood flow and facilitates pressure redistribution.

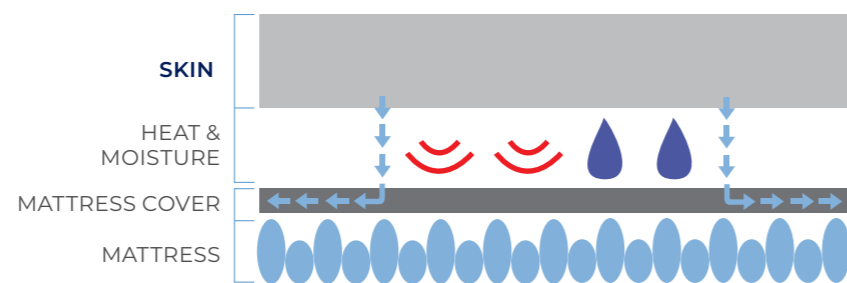


### Microclimate

Microclimate refers to temperature and moisture at the interface between the skin and a support surface.

For every 1°C temperature elevation of a human cell, metabolic rate increases by 10%.

This increases the need for nutrients and oxygen – both of which are needed to optimise skin protection and prevent Pressure Injury.



### Multi-Stretch Vapour Permeable Covers

The multi-stretch, vapour permeable covers assist in microclimate management. The high Moisture Vapour Transfer Rate (MVTR) promotes air flow and enhances breathability to promote optimal skin condition.

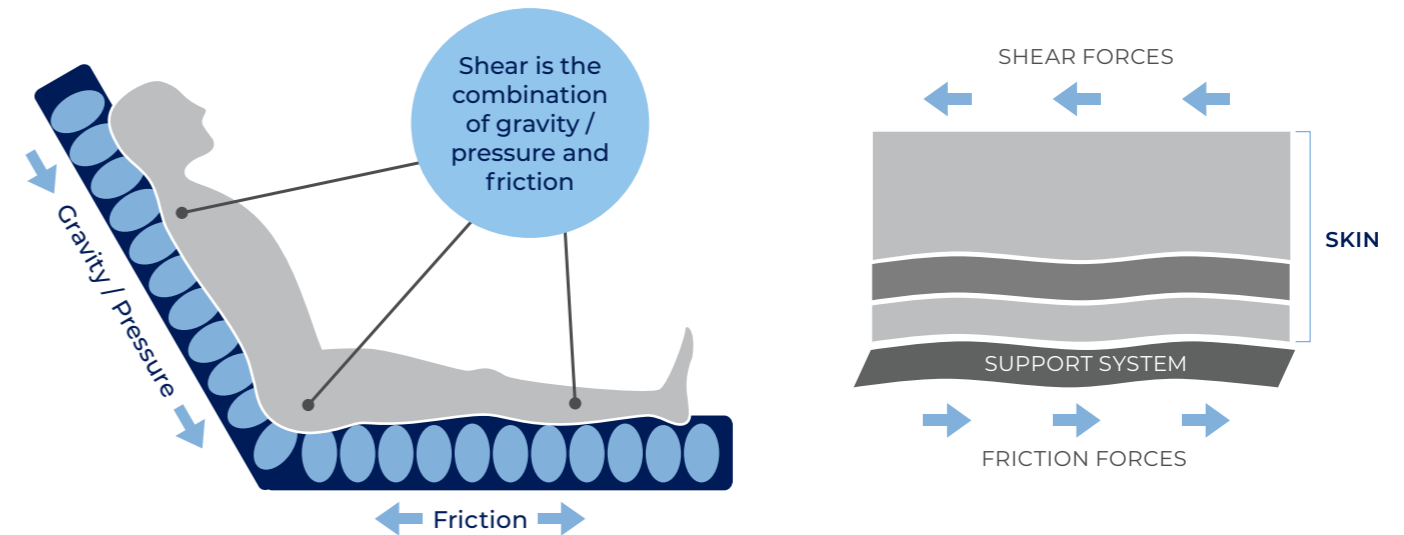
### Air Flow

The Active Air cell design encourages air flow through the alternating cycle by drawing and pushing air as the cells inflate and deflate, helping to ventilate and reduce skin heat and moisture.

## Shear & Friction Forces

**Shear** is a significant cause of Pressure Injury development. Shear is the force created under the skin's surface when friction and pressure cause the top layer of skin to move **with** a support surface, while the underlying tissue remains stationary or moves in the opposite direction. When exposed to shear, the deeper layers of skin, along with blood vessels, become damaged. Shear forces can become more problematic when the head of the bed is raised.

**Friction** occurs when two surfaces slide against each other. In terms of pressure care, friction creates resistance between the skin and contact surface. It is a contributing factor to skin shear, which is a significant cause of Pressure Injury.



### Cell-In-Cell Technology

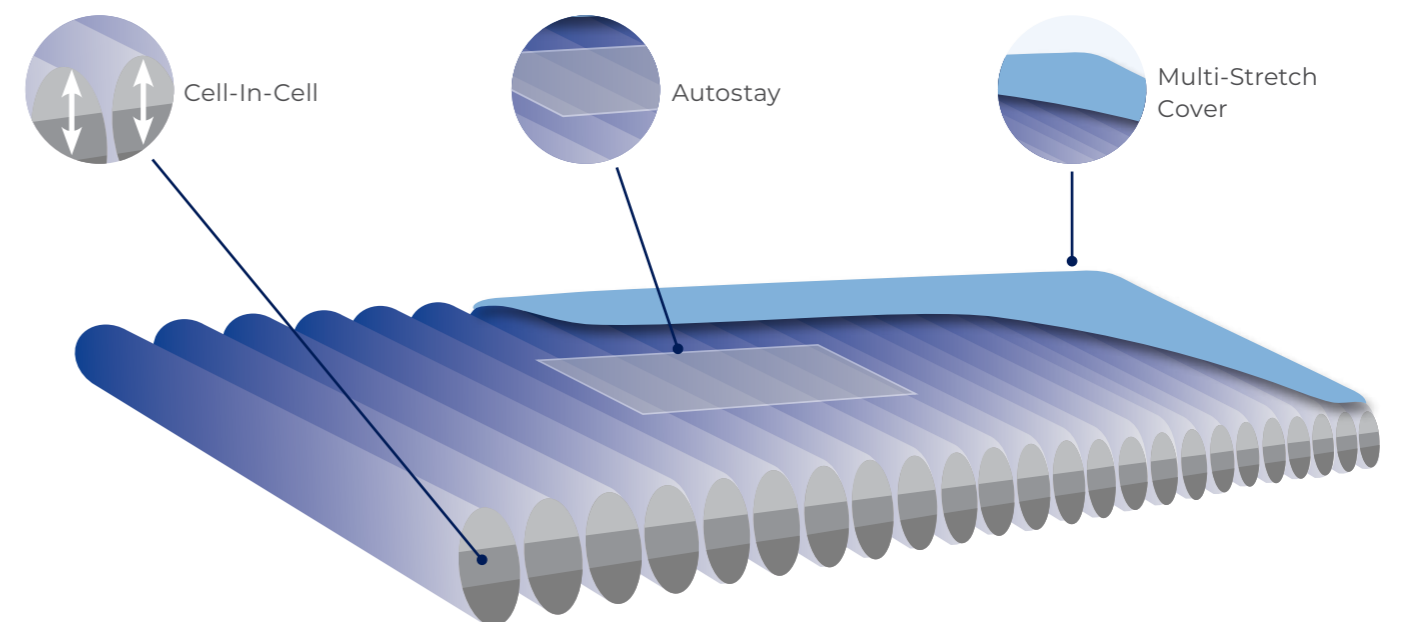
The alternating air cells contain an internal 'safety cell', which remains fully inflated to protect against 'bottoming out', increasing patient safety and greater surface stability.

### AutoStay Band

Active Air overlays and mattresses feature the AutoStay retention band, which holds cells in place for maximum therapeutic effect.

### Multi-Stretch Covers

Multi-stretch covers move with the user, reducing friction and shear, whilst the vapour permeability promotes skin integrity and optimises skin microclimate.



<sup>1</sup> National Pressure Ulcer Advisory Panel, European Pressure Ulcer Advisory Panel and Pan Pacific Pressure Injury Alliance. Prevention and Treatment of Pressure Ulcers: Quick Reference Guide. Emily Haesler (Ed). Cambridge Media: Perth, Australia; 2014.

# aspire ACTIVE AIR<sup>®</sup> 4

## DYNAMIC MATTRESS OVERLAY

The Active Air 4 is a lightweight, easy to use Overlay that is placed on top of an existing foam mattress. Featuring COMFORT CONTROL and offering a suite of other features, the Active Air 4 caters to users considered to be "At Risk" of Pressure Injury. An ideal solution for Home Care or Facility environments.

Breathable multi-stretch cover

Simple and easy to operate semi-digital pump

Integrated cable management



### CLINICAL CONSIDERATIONS

**SLEEP QUALITY**  
Innovative pump technology reduces noise and vibration, for a quieter sleep environment. Large self-adjusting pump hooks fasten effectively to a wide range of beds.

**INFECTION CONTROL**  
Welded seams and zip protection prevent fluid and bacterial ingress into the system, facilitating stringent infection control measures.

**BREATHABLE**  
The multi-stretch cover reduces shear and offers a high Moisture Vapour Transfer Rate (MVTR). This promotes air flow and enhances breathability.

**PRESSURE CARE**  
Intelligent cell design maximises the duration of pressure reduction in the alternation cycle.

**SAFETY**  
The power cord is retained within the overlay eliminating it's potential as a trip hazard, as well as cable damage within the bed mechanism. The power cord can be run along either side of the overlay for improved access to power outlets.

**HYGIENE**  
Machine washable cover at 95° C to achieve superior sanitising.

### FEATURES



#### COMFORT: For Improved User Outcomes

**Variable Cycle Times** - A choice of 10, 15 or 20 minute cycles for caregivers to meet the comfort needs of a range of users. The system defaults to the shortest cycle time.

**Comfort Control Dial** - Allows caregivers to adjust pressure to suit the user's pressure care needs according to their body weight.

**Active Microclimate Management** - Air is recirculated around the mattress cells reducing moisture and improving sleep surface comfort.



#### SAFETY: For Users & Care Staff

**AutoLock** - Control panel automatically locks if not touched for 30 seconds preventing accidental changes to modes and settings.

**Audible & Visual Alarms** - Staff are immediately alerted if a problem occurs, maximising peace of mind and reducing the risk to the patient.

**Rapid Release CPR** - Allows quick deflation of the overlay, including head cells, in emergency situations. This valve can also be used in conjunction with the optional Rapid Inflation Turbo Pump for rapid inflation in urgent situations.

**Intelligent Static Mode** - After 20 minutes the system will revert back to alternating mode. This ensures maximum user protection and pressure management if staff forget to reactivate alternation.



#### PROTECTION: Maximises Up Time and Reliability

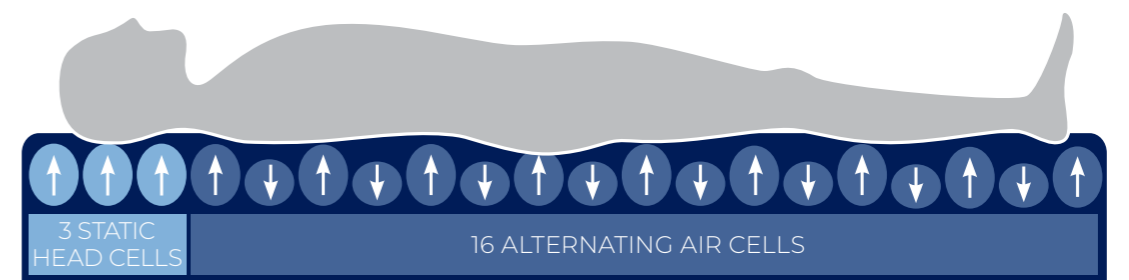
**Modular Pump Design** - Improves serviceability thus reducing down time.

**Power Cord Protection** - Patented cable lock significantly reduces the risk of power cord disconnection or damage.

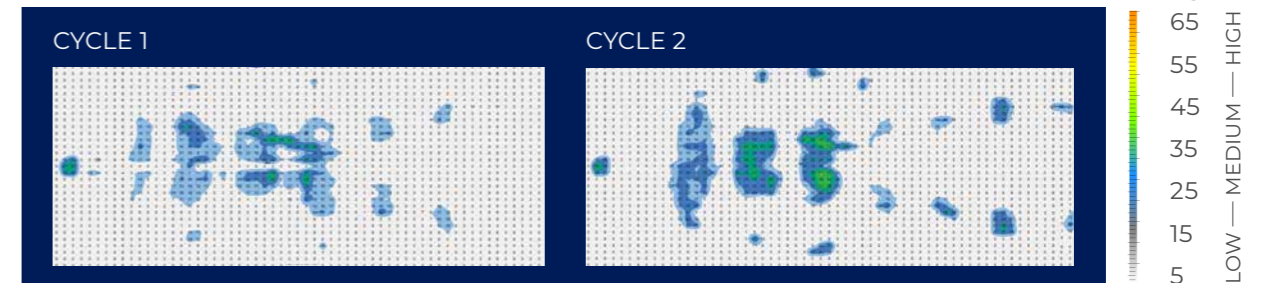
**Simple Cell Connections** - O-ring connections push to lock/pull to unlock for tool-free maintenance.

**Rapid Inflation** - Optional Rapid Inflation Turbo Pump completely inflates overlay in 10-15 seconds for rapid response to increased patient needs.

**Power Cord Management** - Power cords can be run along either side of the overlay.



#### Interface pressure between mattress and patient



# aspire ACTIVE AIR® 5

## DYNAMIC MATTRESS OVERLAY

The Active Air 5 provides an effective solution for higher weight users considered to be "At Risk" of Pressure Injury. Featuring AUTO DETECT and INTELLIGENT STATIC MODE which provide lower interface pressure and enhanced comfort, the Active Air 5 is suitable for use in a wide range of care settings from Home Care and Acute to Long Term care.

Breathable multi-stretch cover

Simple and easy to operate semi-digital pump

Integrated cable management



### CLINICAL CONSIDERATIONS

**SLEEP QUALITY**  
Innovative pump technology reduces noise and vibration, for a quieter sleep environment. Large self-adjusting pump hooks fasten effectively to a wide range of beds.

**INFECTION CONTROL**  
Welded seams and zip protection prevent fluid and bacterial ingress into the system, facilitating stringent infection control measures.

**BREATHABLE**  
The multi-stretch cover reduces shear and offers a high Moisture Vapour Transfer Rate (MVTR). This promotes air flow and enhances breathability.

**PRESSURE CARE**  
Intelligent cell design maximises the duration of pressure reduction in the alternation cycle.

**SAFETY**  
The power cord is retained within the overlay eliminating it's potential as a trip hazard, as well as cable damage within the bed mechanism. The power cord can be run along either side of the overlay for improved access to power outlets.

**LCD READABILITY**  
The LCD screen provides clear and precise information on cycle time, operating mode and fault codes to assist with troubleshooting.

**HYGIENE**  
Machine washable cover at 95° C to achieve superior sanitising.

### FEATURES



#### COMFORT: For Improved User Outcomes

**Variable Cycle Times** - A choice of 10, 15 or 20 minute cycles for caregivers to meet the comfort needs of a range of users. The system defaults to the shortest cycle time.

**Customised Comfort** - Allows the caregiver to override the AutoDetect function to adjust pressure to suit the user's comfort needs.

**Active Microclimate Management** - Air is recirculated around the mattress cells reducing moisture and improving sleep surface comfort.

**Continuous Low Pressure (CLP) Mode** - When clinically indicated, this mode can be activated for user immersion, envelopment and comfort.



#### SAFETY: For Users & Care Staff

**AutoLock** - Control panel automatically locks if not touched for 30 seconds, preventing accidental changes to modes and settings.

**Audible & Visual Alarms** - Staff are immediately alerted if a problem occurs, maximising peace of mind and reducing the risk to the patient.

**Rapid Release CPR** - Allows quick deflation of the overlay, including head cells, in emergency situations. This valve can also be used in conjunction with the optional Rapid Inflation Turbo Pump for rapid inflation in urgent situations.

**Intelligent Static Mode** - After 20 minutes the system will revert back to alternating mode. This ensures maximum user protection and pressure management if staff forget to reactivate alternation.

**AutoDetect** - Based on the user's weight and size, appropriate pressure output is automatically calculated to ensure optimal care and protection.

**24 Hour Transport Mode** - In the event of a power failure, this feature provides a security buffer allowing patients to remain on an inflated surface until power can be restored.



#### PROTECTION: Maximises Up Time and Reliability

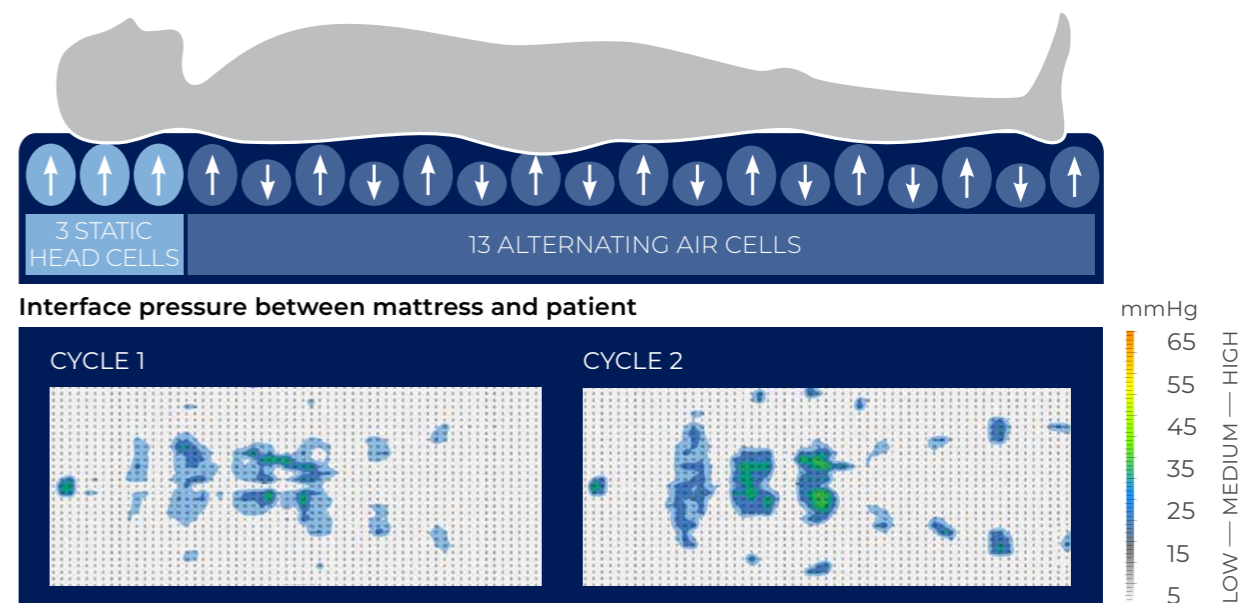
**Modular Pump Design** - Improves serviceability thus reducing down time.

**Power Cord Protection** - Patented cable lock significantly reduces the risk of power cord disconnection or damage.

**Simple Cell Connections** - O-ring connections push to lock/pull to unlock for tool-free maintenance.

**Rapid Inflation** - Optional Rapid Inflation Turbo Pump completely inflates overlay in 10-15 seconds for rapid response to increased patient needs.

**Power Cord Management** - Power cords can be run along either side of the overlay.



# aspire ACTIVE AIR® 8

## DYNAMIC MATTRESS REPLACEMENT

The Active Air 8 is a dynamic mattress replacement suitable for users at "High Risk" of Pressure Injury. Featuring AUTODETECT, and AUTOPROTECT, together with CELL-IN-CELL technology, the Active Air 8 provides the highest levels of care into Acute and Long Term care environments. The Active Air 8's innovative features ensure lowest interface pressures with an easy-to-use digital pump.

Breathable multi-stretch cover

Simple and easy to operate semi-digital pump

Integrated cable management



### CLINICAL CONSIDERATIONS

**SLEEP QUALITY**  
Innovative pump technology reduces noise and vibration, for a quieter sleep environment. Large self-adjusting pump hooks fasten effectively to a wide range of beds.

**INFECTION CONTROL**  
Welded seams and zip protection prevent fluid and bacterial ingress into the system, facilitating stringent infection control measures.

**BREATHABLE**  
The multi-stretch cover reduces shear and offers a high Moisture Vapour Transfer Rate (MVTR). This promotes air flow and enhances breathability.

**PRESSURE CARE**  
Intelligent cell design maximises the duration of pressure reduction in the alternation cycle.

**SAFETY**  
The power cord is retained within the overlay eliminating it's potential as a trip hazard, as well as cable damage within the bed mechanism. The power cord can be run along either side of the overlay for improved access to power outlets.

**LCD READABILITY**  
The LCD screen provides clear and precise information on cycle time, operating mode and fault codes to assist with troubleshooting.

**HYGIENE**  
Machine washable cover at 95° C to achieve superior sanitising.

### FEATURES



#### COMFORT: For Improved User Outcomes

**Variable Cycle Times** - A choice of 10, 15, 20, 25 or 30 minute cycles allowing caregivers to meet the comfort needs of a range of users. The system defaults to the shortest cycle time.

**Customised Comfort** - Allows the carer to override the AutoDetect function to adjust pressure to suit the user's comfort needs.

**Cell in Cell Technology** - When the bed is moved, the top two layers of cells move with the user, whilst the bottom layer remains in position on the bed platform, reducing shear and preventing bottoming out.

**Active Microclimate Management** - Air is recirculated around the mattress cells reducing moisture and improving sleep surface comfort.

**Zoned Cell Layout** - Cell width is narrowed through the lower torso/sacral area for improved comfort and pressure redistribution.



#### SAFETY: For Users & Care Staff

**AutoLock** - Control panel automatically locks if not touched for 30 seconds, preventing accidental changes to modes and settings.

**Audible & Visual Alarms** - Staff are immediately alerted if a problem occurs, maximising peace of mind and reducing the risk to the patient.

**Rapid Release CPR** - Allows quick deflation of the mattress, including head cells, in emergency situations. This valve can also be used in conjunction with the optional Rapid Inflation Turbo Pump for rapid inflation in urgent situations.

**Intelligent Static Mode** - After 20 minutes the system will revert back to alternating mode. This ensures maximum user protection and pressure management if staff forget to reactivate alternation.

**AutoProtect** - When the head of the bed is raised to 45° or more, air pressure automatically increases to prevent bottoming out.

**AutoDetect** - Based on the user's weight and size, appropriate pressure output is automatically calculated to ensure optimal care and protection.

**24 Hour Transport Mode** - In the event of a power failure, this feature provides a security buffer allowing patients to remain on an inflated surface until power can be restored.



#### PROTECTION: Maximises Up Time and Reliability

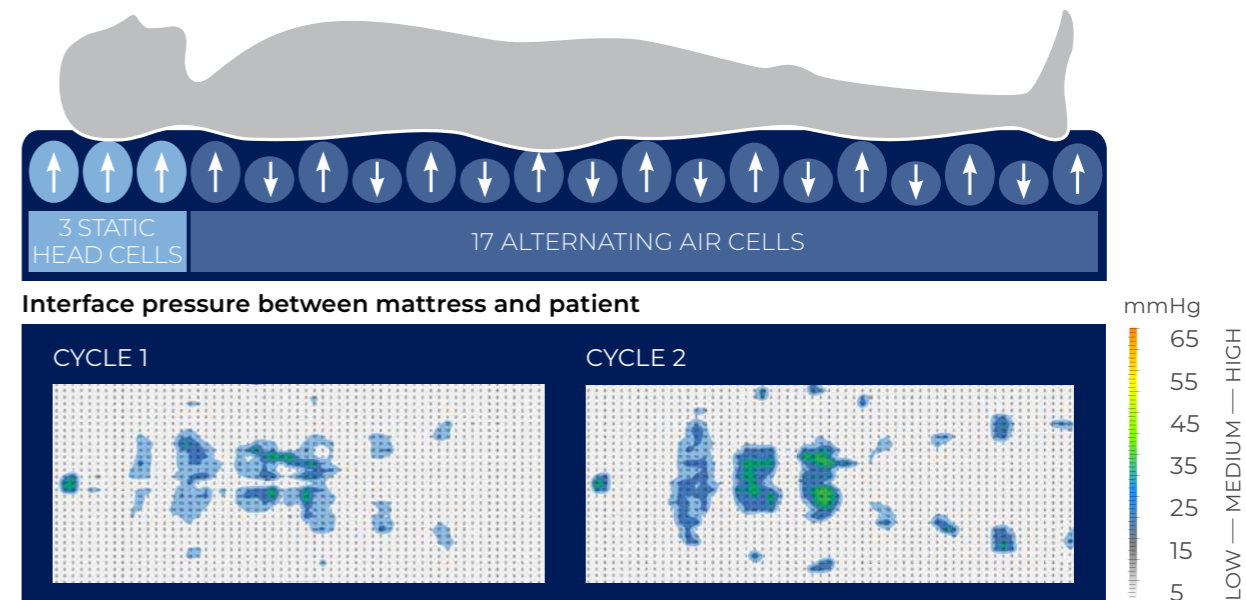
**Modular Pump Design** - Improves serviceability thus reducing down time.

**Power Cord Protection** - Patented cable lock significantly reduces the risk of power cord disconnection or damage.

**Simple Cell Connections** - O-ring connections push to lock/pull to unlock for tool-free maintenance.

**Rapid Inflation** - Optional Rapid Inflation Turbo Pump completely inflates mattress in 10-15 seconds for rapid response to increased patient needs.

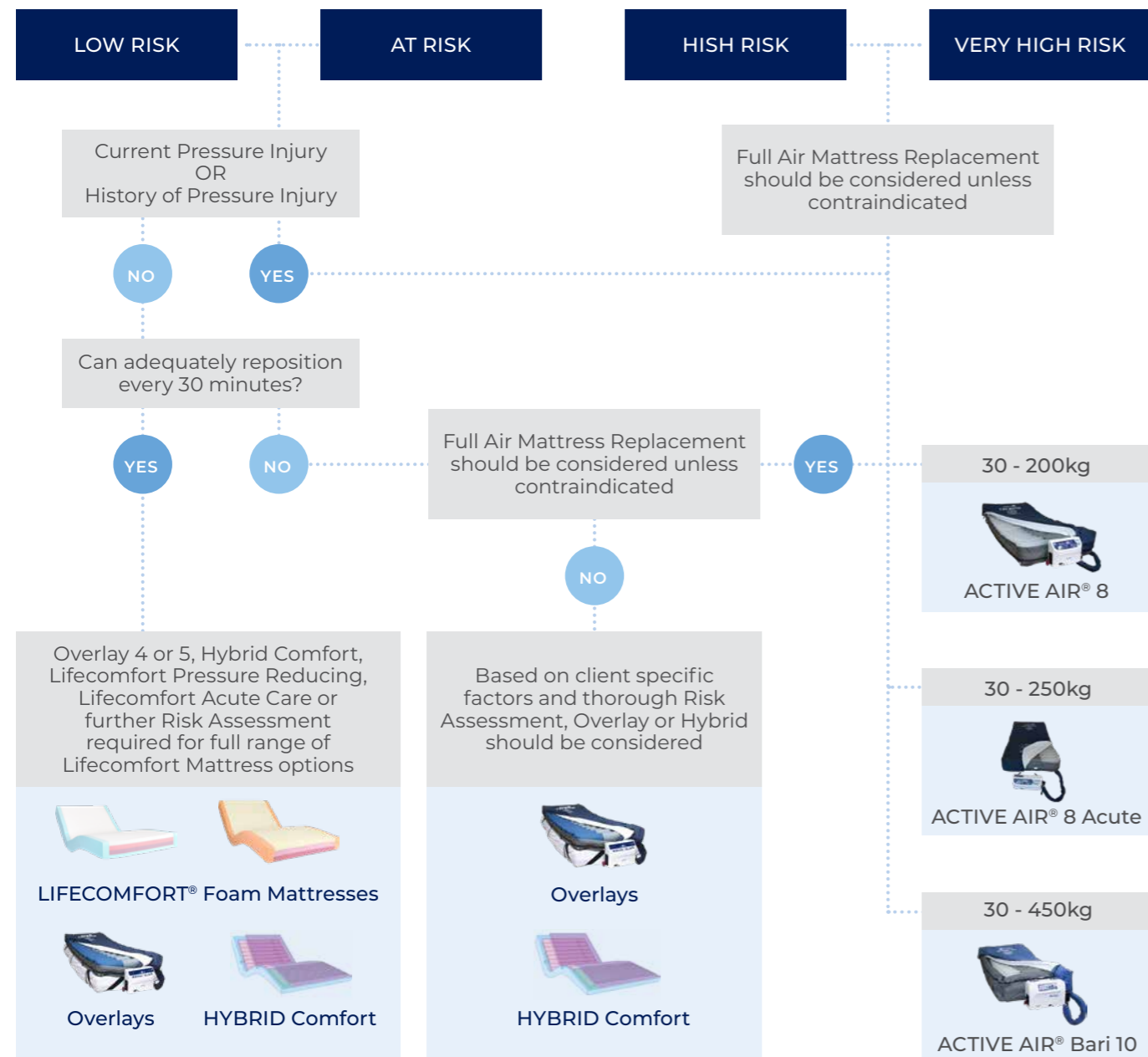
**Power Cord Management** - Power cords can be run along either side of the mattress.



# ACTIVE AIR® Choice Assistance Guide

The support system you choose should match the individual's needs. This guide was developed, based on best available evidence, to guide you in choosing the most appropriate Active Air System<sup>2</sup>.

TREATMENT	PREVENTATIVE		THERAPEUTIC	
WATERLOW SCORE	<10	10+	15+	20+
BRADEN SCORE	18-15	14-13	12-10	<9



## IMPORTANT CONSIDERATIONS:

- It is important to remember that this is a guide and that good clinical judgement is required when determining a person's Pressure Injury risk.
  - Always consider recent changes in patient condition or physiology e.g: illness leading to weight loss; reduced mobility due to injury; preparation for surgery & post-surgery outcomes.
  - Assessment of Pressure Injury risk should be ongoing.
2. Australian Wound Management Association. Pan Pacific Clinical Practice Guideline for the Prevention and Management of Pressure Injury. Abridged Version, AWMA; March 2012. Published by Cambridge Publishing, Osborne Park, WA. ISBN Print: 978-0-9807842-9-9, ISBN Online: 978-0-9807842-8-2

# Specifications



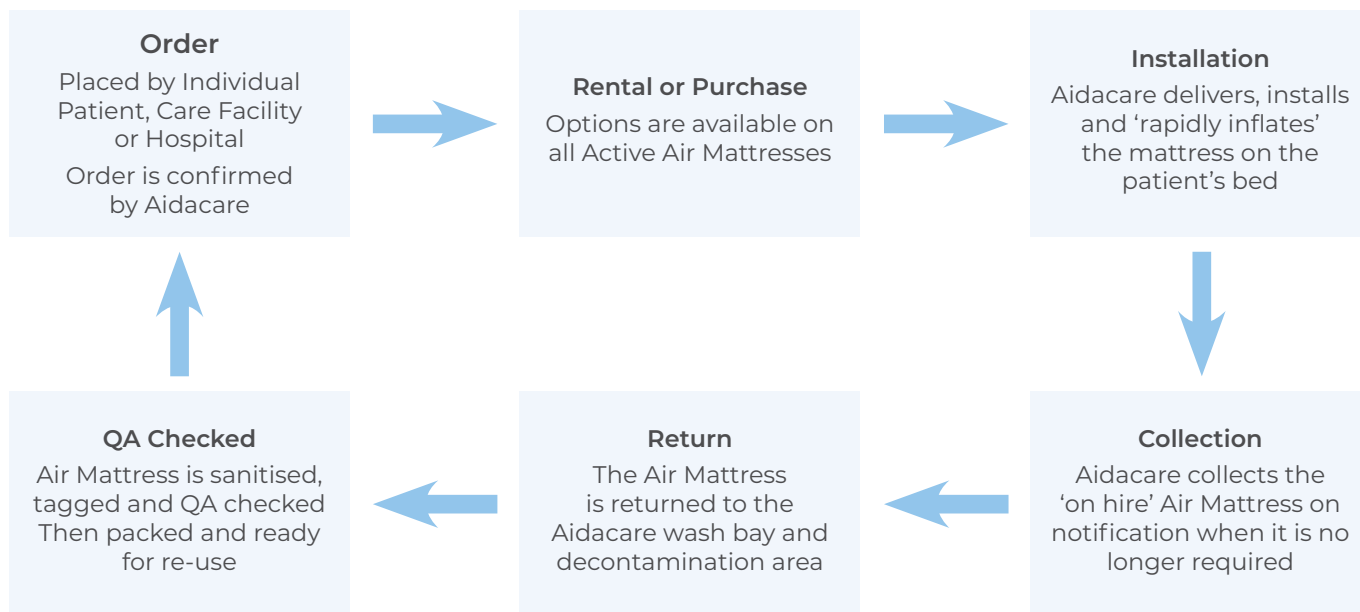
OVERLAY / MATTRESS	Active Air 4	Active Air 5	Active Air 8
Code	PTM639100 (Single)	PTM639200 (Single) PTM639210 (King Single)	PTM639300 (Single) PTM639310 (King Single)
System	Overlay	Overlay	Mattress Replacement
Risk Category	At Risk (medium)	At Risk (medium)	At Risk - High Risk
Patient Weight Range	30 - 135kg	30 - 175kg	30 - 200kg
Number of Cells	19	16	20
Static Head Cells	3	3	3
Cell Cycle	1 in 2	1 in 2	1 in 2
Cycle Time	10 / 15 / 20 mins	10 / 15 / 20 mins	10 / 15 / 20 / 25 / 30 mins
Cell Material	Nylon TPU	Nylon TPU	Pure TPU
Single - Dimensions (mm)	2000 x 850 x 100	2000 x 850 x 130	2000 x 900 x 200
King Single - Dimensions (mm)	N/A	2000 x 1050 x 130	2000 x 1050 x 200
Weight	4.9kg	4.9kg	8.9kg
Safe Working Load	135kg	175kg	200kg
PUMP			
Controls	Semi - Digital	Digital	Digital
Dimensions (mm)	320 x 130 x 230	320 x 130 x 230	320 x 130 x 230
Weight	3.5kg	3.5kg	3.5kg
Supply Voltage	230V, 50Hz	230V, 50Hz	230V, 50Hz
FEATURES			
AutoDetect	x	✓	✓
AutoProtect	x	x	✓
AutoLock	✓	✓	✓
CPR Release	✓	✓	✓

**2 YEARS WARRANTY**  
Mattress/Overlay

**2 YEARS WARRANTY**  
Pump

Active Air is a registered trademark.

The **ACTIVE AIR®** Management Cycle ensures efficient and effective supply and support to patients.



## ASSOCIATED PRODUCTS



### FLOORLINE FL250 BED

Floorline aged care beds offer the ultimate in resident safety and comfort

Shown Aidacare FL250 Floorline - 4 Function - 250kg



### PRESSURE CARE CHAIRS

Offer exceptional comfort and relief with the aid of air cushioned seating

Shown Aspire COVE Pressure Relief Chair - Navy/Bronx Steel



### TRANSFER AIDS

Extensive range of high quality resident lifters and slings

Shown Aidacare Aspire A205 Patient Lifter LSS390610